# EDWARD TELLER

- Edward Teller was born in Budapest, Hungary, on January 15, 1908.

- He graduated in chemical engineering at Karlsruhe, Germany, before studying theoretical physics at Munich and Copenhagen under Niels Bohr.

- He received his Ph.D. in physics in 1930 at the University of Leipzig in Germany, where he helped Werner Heisenberg lay the foundation of nuclear physics.

- From 1931–32, he worked in association with James Franck at the University of Göttingen in Germany.

- With the rise of the Nazis, he left Germany, and from 1933–34 he worked in Copenhagen with Niels Bohr.

- In February 1934, he married "Mici" (Augusta Maria) Harkanyi, the sister of a longtime friend.

- After a period teaching at London City College in 1934, he was appointed Professor of Physics at George Washington University in Washington, DC in 1935, where he continued to work until 1941.

  Prior to 1939, and the announcement to the scientific community of the discovery of fission, Teller was engaged as a theoretical physicist working in the fields of quantum physics, molecular physics, and nuclear physics. In 1941, his interest turned to the use of nuclear energy, both fission and fusion. He began work on the Manhattan Project at Columbia University and the University of Chicago with Enrico Fermi and Leo Szilard.

- In 1943, he joined Los Alamos National Laboratory and continued his work on both fission explosions and early plans on thermonuclear explosives. He served for a period as assistant director of Los Alamos.

- In 1946, he returned to the University of Chicago for two years as a professor, again as a close associate of Enrico Fermi and Maria Mayer.

- From 1949-50, he was again at Los Alamos, concentrating on the hydrogen bomb and contributing to the decision to make the thermonuclear reaction a major part of the U.S. defense program.

- In 1952, at the time of the first hydrogen bomb test, Teller and Ernest O. Lawrence of the University of California at Berkeley became the driving forces behind the foundation of the Lawrence Livermore National Laboratory, then called the Lawrence Radiation Laboratory. In 1953, he was named professor of physics at UC Berkeley, as well as an associate director at the new Laboratory.

- From 1958-60, Teller served as the Laboratory's second director.

  When Teller became director, the Lab was well along in development of the U.S. Navy's Polaris missile warhead, which Teller had advanced. Polaris was the Lab's first military design project and a major success in miniaturizing nuclear devices. The Polaris design was validated in an Operation Hardtack nuclear test in 1958, only a few months before testing was halted by the international nuclear test moratorium.

  The test moratorium was perhaps Teller's greatest challenge as director, faced as he was with keeping the Lab viable and its people working on nuclear designs, even though they couldn't conduct any tests. During this time, plans were laid for a program exploring the peaceful uses of nuclear explosives — Project Plowshare.

  (See Laboratory History at http://www.llnl.gov/llnl/02about-llnl/history.html)

- In 1960, Teller resigned as director to become professor of physics at large for the University of California. He later served as chairman for the UC Davis Department of Applied Sciences at Livermore.

- In 1975, he was named Director Emeritus of Lawrence Livermore National Laboratory, and was also appointed Senior Research Fellow at Stanford University's Hoover Institution, positions he still holds.

Teller is best known to the public for his work on the development of nuclear explosives and for his advocacy of a strong defense for the country.

He has received numerous awards for his contributions to physics and public life, and has published more than a dozen books on subjects ranging from energy policy to defense issues.

Among his many honors, Teller was awarded the National Medal of Science for 1982 by President Ronald Reagan, the Presidential Citizens Medal in 1989, the U.S. Dept. of Energy's Gold Award in 2002 and the Presidential Medal of Freedom in 2003. He is a fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Nuclear Society.

See also:

- *Science & Technology Review*, 1998 issue on the life of Edward Teller (http://www.llnl.gov/str/07.98.html)
- Interview with Edward Teller (http://www.llnl.gov/llnl/history/teller.html)
- Overview of Edward Teller tenure as the second director of the Lawrence Livermore National Laboratory (http://www.llnl.gov/timeline/directors/teller.html)